Lung Cancer Can Strike Nonsmokers

Dana Reeve, widow of Christopher Reeve, highlights growing incidence of malignancy unconnected to smoking

By Amanda Gardner
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WEDNESDAY, Aug. 10 (HealthDay News) -- The news that Dana Reeve, the widow of "Superman" actor Christopher Reeve, has lung cancer proves the disease can -- and does -- strike anyone.

She is only 44 years old. And never smoked.

Her revelation Tuesday followed by two days the lung-cancer death of *ABC* news anchor Peter Jennings at age 67.

Jennings was both a smoker and an ex-smoker: He quit for 20 years but admitted starting again after the Sept. 11, 2001, terrorist attacks.

While Jennings' ordeal was probably due to cigarettes, Reeve's struggle is less understandable.

Some 85 percent to 90 percent of lung cancer cases occur in smokers, said Dr. Ruth Oratz, an associate professor of clinical medicine at New York University School of Medicine and an advisor to the American Lung Association.

Still, that leaves some 20,000 to 25,000 people who will be diagnosed with lung cancer this year in the United States who never smoked, Oratz added.

Lung cancer's overall toll is huge -- it's the most deadly cancer, killing more Americans than any other form of the disease, including ovarian and breast cancer combined. According to the American Cancer Society, there will be about 172,570 new cases of lung cancer in the United States this year -- 93,010 among men and 79,560 among women. And about 163,510 people will die of the disease -- 90,490 men and 73,020 women.

But the face of lung cancer is changing and, sadly, Dana Reeve may represent that newer face.

"What we've been seeing in the last 10 to 15 years is a gradual change in the standard lung cancer patient," said Dr. Steven Herman, a thoracic surgeon and lung cancer specialist who is chief of minimally invasive thoracic surgery at Long Island College Hospital in New York City.

For one thing, Reeve is a woman.

"Traditionally, in the past, lung cancer was primarily a male disease where the ratio was maybe 75 to 80 percent males, and the rest females," Herman said.

Now that's changing. "Lung cancer is increasing in incidence in women smokers and nonsmokers," Oratz concurred. "We don't know why that's happening in nonsmokers."

And lung cancer is striking younger people, Herman said.

These demographic shifts seem related to biological shifts.

In the past, lung cancers tended to be predominantly of the squamous cell subtype. This form of lung cancer was also more closely associated with smoking, Herman said.

In the last decade or so, the predominant cell type has become adenomacarcinoma, which is less tied to smoking.

"Clearly, adenomacarcinomas are much more likely to occur in smokers but a much larger percentage of people who have adenomacarcinoma may not be smokers," Herman said. "The fact is that adenocarcinoma is increasing in frequency compared to squamous means you're going to get more nonsmokers with the disease."

Women have a slightly higher propensity to get this type of lung cancer. And, adenomacarcinoma also tends to hit at an earlier age because it's not so dependent on the build-up of years of irritation caused by smoking, he added.

And the younger the patient, the more aggressive the tumor, it seems.

"If lung cancer is discovered at a younger age, it seems to be a more aggressive type of cancer," said Dr. Paul Kvale, president of the American College of Chest Physicians and a pulmonologist at Henry Ford Hospital in Detroit. "Likewise with female gender and family history, the two of those together seem to be associated with a more aggressive type of lung cancer."

But there are a number of other possible risk factors.

Passive smoking is a big one. "We think secondhand smoke is a very important risk factor, particularly if you live in a household where others smoke," Kvale said.

"Women who live with a partner who smokes or who work in a workplace that is smoky are at a major increased risk," Oratz said. "For some reason that is not well understood, women are at a higher risk than men for lung cancer given the same exposure."

Exposure to asbestos is another risk factor, but one that is more pertinent to men because it is an occupational risk factor more than a risk factor.

Radon is another possible environmental risk factor, although quantifying how much of an additional risk has proved difficult, Kvale said. A radioactive gas, radon comes from the natural decay of uranium that is found in nearly all soils. It is also found in many homes and is known to cause lung cancer, according to U.S. health officials.

And a number of individuals who have received radiation treatment for other diseases in the past may be at increased risk of lung cancer, Oratz said.

Genetics also play a small role in the development of lung cancer. "There's not a strong genetic linkage but if you come from a family where other family members have lung cancer you will have a slight increased risk," Oratz said.

Or it could be a combination of factors. "When you couple several of those things, for example, secondhand-smoke exposure and family history, then you've really got several things that are increasing your own risk," she said.

Then there's the unknown.

"Undoubtedly there are other issues that we haven't yet discovered," Kvale said.

More information

Visit the **American Lung Association** for more on lung cancer.

SOURCES: Ruth Oratz, M.D., associate professor, clinical medicine, New York University School of Medicine, and advisor, American Lung Association; Steven Herman, M.D., chief, minimally invasive thoracic surgery, Long Island College Hospital, New York City; Paul A. Kvale, M.D., president, American College of Chest Physicians, and pulmonologist, Henry Ford Hospital, Detroit